

What is claimed is:

1. A method for inhibiting cell growth or enhancing cell death comprising:

- a) providing a photosensitive agent to a cell;
- b) applying an electric pulse to the cell of a sufficient strength and duration to

electroporate the cell with the photosensitive agent; and

5 c) applying light of an activatable wavelength to the cell thereby activating the agent and inhibiting cell growth or enhancing cell death.

2. The method of claim 1, wherein multiple pulses are applied to the cell.

3. The method of claim 1, wherein the pulse amplitude is about 0.1 to 6.0 kV/cm.

4. The method of claim 1, wherein the pulse width is about 0.1 to 10 milliseconds.

5. The method of claim 1, wherein the pulse is applied using at least two electrodes.

6. The method of claim 5, wherein at least one light conductor is combined with the electrode.

7. The method of claim 6, wherein the electrode and the light conductor comprise an electroporation catheter configuration.

8. The method of claim 6, wherein the light conductor comprises a fiberoptic rod.

9. The method of claim 8, wherein the fiberoptic rod comprises a plurality of optical fibers.

10. The method of claim 6, wherein the electrodes comprise at least two needle electrodes.

11. The method of claim 10, wherein the needle electrodes are heatable.

12. The method of claim 10, wherein the needle electrodes are further extended with one or more fiberoptics comprising the light conductor.

13. The method of claim 1, wherein the light is applied prior to, simultaneously with, or following the pulse.
14. The method of claim 1, wherein the light is applied by a laser.
15. The method of claim 1, wherein the light is applied by a tungsten lamp.
16. The method of claim 1, wherein the light is applied by a near ultraviolet lamp.
17. The method of claim 1, wherein the light has a wavelength of about 300 to 950 nm.
18. The method of claim 1, wherein the amount of light applied is about 50 to 1000J/cm².
19. The method of claim 1, wherein the light is applied extracorporeally.
20. The method of claim 1, wherein the light is applied internally.
21. The method of claim 20, wherein the light is applied with a fiberoptic rod.
22. The method of claim 21, wherein the fiberoptic rod comprises a plurality of optical fibers.
23. The method of claim 1, further comprising applying heat to the cell.
24. The method of claim 23, wherein the heat has a temperature of about 36 to 42 degrees.
25. The method of claim 1, wherein the photosensitive agent is a photooxidizing agent.
26. The method of claim 25, wherein the photooxidizing agent is selected from the group consisting of thiopyronin, acridine orange, Zn-phthalocyanine-sulfonate, benzoporphyrin, protoporphyrin, hematoporphyrin, PHOTOFRIN I, PHOTOFRIN II, ANTRIN and porphycene.
27. The method of claim 1, wherein the photosensitive agent is a cytostatic agent.

28. The method of claim 27, wherein the cytostatic agent is selected from the group consisting of daunomycin, adriamycin and actinomycin.

29. The method of claim 1, further comprising providing a sensitizing agent.

30. The method of claim 29, wherein the sensitizing agent is 1 aevuline acid.

31. The method of claim 30, wherein the photosensitive agent is protoporphyrin IX.

32. The method of claim 1, wherein the method is performed in a subject.

33. The method of claim 32, wherein the subject is a human.

34. The method of claim 1, further comprising administering a visualizing agent to the subject.

35. The method of claim 1, wherein the electrodes comprise meander electrodes.

36. A method for treating a cell proliferative disorder in a subject comprising:

a) administering a photosensitive agent to the subject having or suspected of having a

cell proliferative disorder;

b) applying an electric pulse to a cell in the subject of a sufficient strength and duration

5 to electroporate the cell with the photosensitive agent; and c) applying light of an activatable wavelength to the cell thereby activating the agent and treating the cell proliferative disorder.

37. The method of claim 36, wherein the cell proliferative disorder is benign.

38. The method of claim 36, wherein the cell proliferative disorder is a cancer.

39. The method of claim 38, wherein the cancer is selected from the group consisting of skin cancer, a solid tumor, a metastasizing cancer and hematopoietic cancer.

40. The method of claim 39, wherein the hematopoietic cancer is histiocytic lymphoma.

41. The method of claim 36, wherein multiple pulses are applied to the cell.

42. The method of claim 36, wherein the pulse amplitude is about 0.1 to 6.0 kV/cm.
43. The method of claim 36, wherein the pulse width is about 0.1 to 10 milliseconds.
44. The method of claim 36, wherein the pulse is applied using at least two electrodes.
45. The method of claim 36, wherein at least one light conductor is combined with the electrode.
46. The method of claim 45, wherein the electrode and the light conductor comprise an electroporation catheter configuration.
47. The method of claim 45, wherein the light conductor comprises a fiberoptic rod.
48. The method of claim 47, wherein the fiberoptic rod comprises a plurality of optical fibers.
49. The method of claim 45, wherein the electrodes comprise at least two needle electrodes.
50. The method of claim 49, wherein the needle electrodes are heatable.
51. The method of claim 49, wherein the needle electrodes are further extended with one or more fiber optics comprising the light conductor.
52. The method of claim 36, wherein the light is applied prior to, simultaneously with, or following the pulse.
53. The method of claim 36, wherein the light is applied by a laser.
54. The method of claim 36, wherein the light is applied by a tungsten lamp.
55. The method of claim 36, wherein the light is applied by a near ultraviolet lamp.
56. The method of claim 36, wherein the light has a wavelength of about 300 to 950 nm.

57. The method of claim 36, wherein the amount of light applied is about 50 to 1000J/cm².
58. The method of claim 36, wherein the light is applied extracorporeally.
59. The method of claim 36, wherein the light is applied internally.
60. The method of claim 59, wherein the light is applied with a fiberoptic rod.
61. The method of claim 60, wherein the fiberoptic rod comprises a plurality of optical fibers.
62. The method of claim 36, further comprising applying heat to the cell.
63. The method of claim 62, wherein the heat has a temperature of about 36 to 42 C.
64. The method of claim 36, wherein the photosensitive agent is a photooxidizing agent.
65. The method of claim 64, wherein the photooxidizing agent is selected from the group consisting of thiopyronin, acridine orange, Zn-phthalocyanine-sulfonate, benzoporphyrin, protoporphyrin, hematoporphyrin, PHOTOFRIN I, PHOTOFRIN II, ANTRIN and porphycene.
66. The method of claim 36, wherein the photosensitive agent is a cytostatic agent.
67. The method of claim 66, wherein the cytostatic agent is selected from the group consisting of daunomycin, adriamycin and actinomycin.
68. The method of claim 36, further comprising providing a sensitizing agent.
69. An apparatus for treating a cell proliferative disorder in a subject comprising:
a) an electrode capable of applying an electric pulse of sufficient strength and duration to electroporate a cell in the subject; and

b) a light conductor for applying light of an activating wavelength to the electroporated cell.

- 70. The electrical apparatus of claim 69, wherein the light conductor applies light provided by a laser.
- 71. The electrical apparatus of claim 69, wherein the light conductor is a laser.
- 72. The electrical apparatus of claim 69, wherein the light conductor applies light provided by a visible wavelength emitter.
- 73. The electrical apparatus of claim 69, wherein the light conductor comprises a visible wavelength emitter.
- 74. The electrical apparatus of claim 69, wherein the light conductor comprises a fiberoptic rod.
- 75. The electrical apparatus of claim 74, wherein the fiberoptic rod has a metallic grid on the exterior surface.
- 76. The electrical apparatus of claim 74, wherein a metallic film is deposited on the exterior surface of the fiberoptic rod.
- 77. The electrical apparatus of claim 69, wherein the electrode comprises at least two needle electrodes.
- 78. The electrical apparatus of claim 77, wherein the needle electrodes are further extended with one or more fiberoptics comprising the light conductor.
- 79. The electrical apparatus of claim 78, wherein the needle electrodes are heatable.